

REMARKS***Summary of the Response***

Upon consideration of the instant response, claims 1 – 28 will remain pending.

Summary of the Official Action

In the instant Office Action, the Examiner has rejected 1 – 17, 20 – 23, 27, and 28 over the art of record, and claims 20 – 23 based upon formal matters. By the present remarks, Applicants submit that the rejections have been overcome, and respectfully request reconsideration of the outstanding Office Action and allowance of the present application.

Acknowledgement of Allowable Subject Matter

Applicant understands that, as claims 18, 19, and 24 – 26 have not been rejected, these claims contain allowable subject matter and would be allowable if presented in independent forms that include all the features of their base claims. Moreover, Applicant notes that, as the pending independent claims are likewise believed allowable, none of claims 18, 19, and 20 – 23 have been presented in independent and allowable form at this time.

Further, while indicating his understanding of the instant Office Action, Applicant notes that, as the Examiner has not examined the merits of each pending claim in the instant Office Action, the next official action cannot be made final.

Drawings are Acceptable

Applicant notes that the drawings on file in the instant application should be indicated as acceptable. While the Examiner has indicated that sheets 1, 2, 9, and 10 were not scanned into the Official File, Applicant submits that the fault lies in the U.S. Patent and Trademark Office, not the Applicant.

In this regard, Applicant provided original Figures with the filing of the application and supplemented the original Figures with Replacement Sheets required by a Notice of Informal Application. The original sheets (not replaced by the Replacement Sheets) and the Replacement Sheets together form the drawings for the Application. Further, Applicant has reviewed the Image File Wrapper (IFW) on the PAIR system and found, contrary to the Examiner's assertions, sheets 1, 2, 9, and 10 have been scanned into the Official File.

Accordingly, Applicant submits that, as neither the Examiner nor the PTO Draftsperson has forwarded an objection to the drawings, the Examiner's request for drawings is limited to the noted sheets 1, 2, 9, and 10, which Applicant has shown is contained in the IMF. Therefore, Applicant submits that the required formal drawings are on file, and requests confirmation of the same. Otherwise, Applicant requests that the Examiner indicate what corrections are necessary to the instant drawings to render them formal.

Traversal of Rejection Under 35 U.S.C. § 103(a)

1. *Over Perez in view of Chester*

Applicant traverses the rejection of claims 1 - 17, 27, and 28 under 35 U.S.C. § 103(a) as being unpatentable over PEREZ et al. (U.S. Patent No. 6,487,959) [hereinafter "PEREZ"] in view of CHESTER (U.S. Patent No.

3,0947,257). The Examiner asserts that PEREZ shows all the recited features except that tubes are arranged along skin segments and not between stiffening elements, that CHESTER shows a tube positioned between stiffening members in a wing joint, and that it would have been obvious to modify PEREZ to position the tubes to the stiffening elements, as taught by CHESTER. Applicant traverses the Examiner's assertions.

Applicant's independent claim 1 recites, *inter alia*, whirl chambers comprising lateral stiffening elements and longitudinal stiffening elements, with joints structured and arranged to jointly couple said lateral stiffening elements and said longitudinal stiffening elements of said whirl chambers, *a first drive tube section and a second drive tube section being arranged between adjacent longitudinal stiffening elements*, and a control device functionally connected to said pump to *swivel adjacent whirl chambers around joint axes via complementary volume changes in said first and second drive tube sections*.

Further, Applicant's independent claim 33 recites, *inter alia*, swivelably positioning a plurality of whirl chambers next to one another so that the whirl chambers are swivelable relative to one another, and controlling the swiveling of the plurality of whirl chambers by *changing a complementary volume of first and second drive tube sections positioned between adjacent longitudinal stiffening elements of the whirl chambers*. Applicant submits that no proper combination of the applied art teaches or suggests at least the above-noted features of the present invention.

Applicant notes that the tubes of PEREZ are specially designed to attach to the skin to slide adjacent panels toward and away from each other. In contrast, CHESTER is designed to rotate the wing section around a pivot point. As the basic motion of the wing sections of PEREZ and CHESTER are distinct from each other, Applicant submits that it would not have been obvious to modify the sliding arrangement of PEREZ with an expansible tube for rotational movement, as taught by CHESTER.

In addition to changing the fundamental operation of PEREZ from a sliding configuration to a rotational configuration, Applicant notes that changing the position of the tube from the skin of PEREZ to closer to the pivot point, i.e., to couple these devices to the inner structure of the wing, would not have been obvious. Applicant submits that, instead the asserted modification would reduce the length of the moment arm, thereby requiring an additional expenditure of energy to move the elements 76, 76a, and 76b in the desired manner. Thus, Applicant submits that it would not have been obvious to modify PEREZ in a manner that would increase costs and energy consumption.

Also, Applicant notes that PEREZ does not show the inner structure of the wing, such that it is not apparent whether an expansible tube(s) of CHESTER would operate in its intended manner within the wing of PEREZ, because it is not apparent that the expansible tubes would have sufficient surface contact within the wing structure of PEREZ to facilitate the rotation necessary in CHESTER. As it is not apparent that the asserted modification would be successful, Applicant submits that the asserted combination of documents is not obvious, nor would

any proper combination of these documents render instant invention unpatentable.

Applicant also notes that, as the actuating devices of PEREZ are intended to operate independently of each other, the art of record fails to provide the requisite motivation or rationale for modifying PEREZ in any manner that would render unpatentable the instant invention. That is, Applicant notes that, while Figures 6 – 8 of CHESTER shows a complementary inflation/deflation of expansible tubes, it is not apparent how or why one ordinarily skilled in the art would modify PEREZ to include such a feature. That is, the single pivot wing of CHESTER provides an up/down motion for the single pivot, whereas PEREZ discloses a complicated multiple shifting/sliding of upper and/or lower wing sections to achieve a desired wing contour.

Because the asserted combination with CHESTER would not allow PEREZ to shift two upper plates of the wing and the two counterpart lower plates in the manner shown in Figure 12 of PEREZ, Applicant submits that the asserted combination of documents would not enable PEREZ to operate in its intended manner. Moreover, Applicant submits that the asserted combination with CHESTER would not allow PEREZ to operate in the manner shown in Figure 11 of PEREZ, in which multiple shifts occur without a counter shift.

Accordingly, for the foregoing reasons, Applicant submits that no proper combination of PEREZ and CHESTER can render unpatentable the instant invention recited in at least independent claims 1 and 28, and that the asserted combination of documents is improper and should be withdrawn.

Further, Applicant submits that claims 2 – 17 and 27 are allowable at least for the reason that these claims depend from allowable base claims and because these claims recite additional features that further define the present invention. Accordingly, Applicant request that the Examiner reconsider and withdraw the instant rejection and indicate that these claims are allowable.

2. Over Perez in view of Chester and further in view of Fisher

Applicant traverses the rejection of claims 20 – 23 under 35 U.S.C. §103(a) as being unpatentable over PEREZ in view of CHESTER and further in view of FISHER (U.S. Patent No. 3,785,567). The Examiner asserts that, as they are equivalent devices, it would have been obvious to substitute the actuator of FISHER for the actuator utilized in the combination of PEREZ and CHESTER. Applicant traverses the Examiner's assertions.

Applicant submits that FISHER fails to teach or suggest the subject matter noted above as deficient in the asserted combination of PEREZ and CHESTER. Moreover, Applicant submits that FISHER fails to teach or suggest the requisite motivation or rationale to properly combine PEREZ and CHESTER in the manner asserted by the Examiner.

Applicant notes that FISHER fails to provide any teaching or suggest as to why or how one ordinarily skilled in the art would combine the teachings of PEREZ and CHESTER, as these documents are directed to wing designs that operate in wholly distinct manners. In other words, Applicant submits that FISHER fails to teach or suggest any reasons why one ordinarily skilled in the art would modify the sliding/shifting plate design of PEREZ with the rotational

movement of CHESTER, particularly, when such a modification prevents PEREZ from operating in its intended manner.

Because no proper combination of the applied art teaches or suggests the combination of features recited in the independent claims, Applicant submits that the art of record fails to render unpatentable any of the pending claims that depend from at least independent claim 1.

Accordingly, Applicant request that the Examiner reconsider and withdraw the instant rejection and indicate that these claims are allowable.

Traversal of Rejection Under 35 U.S.C. § 112, Second Paragraph

Applicant traverses the rejection of claims 20 – 23 under 35 U.S.C. §112, second paragraph, as being indefinite.

Applicant admittedly does not understand the Examiner's rejection, and requests clarification in the next official action. However, Applicant has reviewed rejected claims 20 – 23 and has found these claims defining the subject matter that the inventor regards as his invention. In particular, these claims further define the subject matter of the independent claim, as disclosed in the application and drawings.

Accordingly, reconsider and withdrawal of the instant rejection is requested. Moreover, Applicant requests that the Examiner indicate the pending claims are fully in compliance with the requirements of the statute.

Application is Allowable

Thus, Applicants respectfully submit that each and every pending claim of the present invention meets the requirements for patentability under 35 U.S.C. §§

102 and 103, and respectfully request the Examiner to indicate allowance of each and every pending claim of the present invention.

Authorization to Charge Deposit Account

The undersigned authorizes the charging of any necessary fees, including any extensions of time fees required to place the application in condition for allowance by Examiner's Amendment, to Deposit Account No. 19 - 0089 in order to maintain pendency of this application.

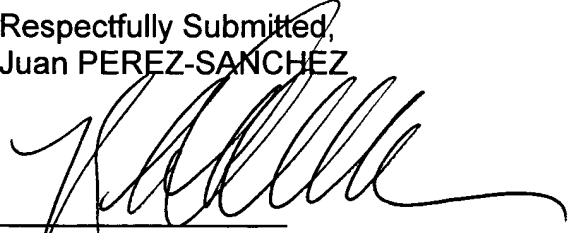
CONCLUSION

In view of the foregoing, it is submitted that none of the references of record, either taken alone or in any proper combination thereof, anticipate or render obvious the Applicants' invention, as recited in each of claims 1 – 28. The applied references of record have been discussed and distinguished, while significant claimed features of the present invention have been pointed out.

Further, any amendments to the claims which have been made in this response and which have not been specifically noted to overcome a rejection based upon the prior art, should be considered to have been made for a purpose unrelated to patentability, and no estoppel should be deemed to attach thereto.

Accordingly, reconsideration of the outstanding Office Action and allowance of the present application and all the claims therein are respectfully requested and now believed to be appropriate.

Respectfully Submitted,
Juan PEREZ-SANCHEZ



Neil F. Greenblum
Reg. No. 28,394

September 6, 2005
GREENBLUM & BERNSTEIN, P.L.C.
1950 Roland Clarke Place
Reston, VA 20191
(703) 716-1191

Robert W. Mueller
Reg. No. 35,043